

NOVEMBER/DECEMBER 2025

**23UMB51 — BACTERIOLOGY AND
MYCOLOGY**

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define infection and invasion.
2. Define toxigenicity
3. Name the causative agent of anthrax.
4. What are the major virulence factors of *Bacillus anthracis*?
5. Which antibiotic is used to treat *Neisseria* infections?
6. What is the primary treatment of typhoid?
7. What is Zygomycosis?
8. What organism causes Histoplasmosis?

9. Why are cell wall synthesis inhibitors selectively toxic to bacteria?
10. How does Griseofulvin act against fungi?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Label the steps in the infectious disease cycle.

Or

- (b) Explain the Koch's and River's postulates.

12. (a) Discuss the mode of transmission of *Mycobacterium tuberculosis*.

Or

- (b) Explain the pathogenesis of *Streptococcus pneumoniae*.

13. (a) Summarize the nosocomial infections and their control.

Or

- (b) Elaborate notes on meningitis.

14. (a) Discuss the Subcutaneous mycoses and Systemic mycoses.

Or

- (b) Explain about Mycotoxins.

15. (a) Discuss the Inhibitors of cell wall synthesis.

Or

- (b) Elaborate notes on the Mechanism of action of Amphotericin B.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Discuss the distribution and role of normal microflora in different parts of the human body.
17. Explain the Causative agent, clinical symptoms, pathogenesis, mode of transmission, prevention, and treatment of *Streptococcus faecalis*.
18. Explain the Pathogenesis, clinical symptoms, mode of transmission, and treatment of infection caused by *Treponema pallidum*.
19. Elaborate notes on Superficial mycoses.
20. Outline the general characteristics and modes of action of Antibacterial agents in detail.